

Form PTO-1449

U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

Serial No.

00-715-B

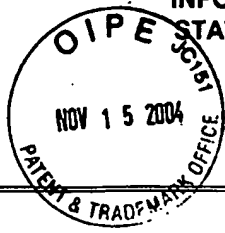
10/716,829

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Applicant: Mirkin, et al.

Filing Date:
November 18, 2003

Group: 1656


**U.S. PATENT DOCUMENTS**

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
JR	1.	6,361,944	03/26/02	Mirkin, et al.	435	6	06/25/99
JR	2.	6,417,340	07/09/02	Mirkin, et al.	536	23.1	10/20/00
JR	3.	6,495,324	12/17/02	Mirkin, et al.	435	6	10/20/00
JR	4.	6,506,564	01/14/03	Mirkin, et al.	435	6	06/26/00
JR	5.	6,582,921	06/24/03	Mirkin, et al.	435	6	09/20/01
JR	6.	6,602,669	08/05/03	Mirkin, et al.	435	6	07/11/01
JR	7.	6,610,491	08/26/03	Mirkin, et al.	435	6	09/28/01
JR	8.	6,645,721	11/11/03	Mirkin, et al.	435	6	09/20/01
JR	9.	6,673,548	01/06/04	Mirkin, et al.	435	6	09/28/01
JR	10.	6,677,122	01/13/04	Mirkin, et al.	435	6	10/11/01
JR	11.	6,682,895	01/27/04	Mirkin, et al.	435	6	10/12/01
JR	12.	6,709,825	03/23/04	Mirkin, et al.	435	6	09/28/01
JR	13.	6,720,147	04/13/04	Mirkin, et al.	435	6	10/12/01
JR	14.	6,720,411	04/13/04	Mirkin, et al.	536	23.1	10/10/01
JR	15.	6,726,847	04/27/04	Mirkin, et al.	216	90	11/30/01
JR	16.	6,730,269	05/04/04	Mirkin, et al.	422	68.1	10/12/01
JR	17.	6,740,491	05/25/04	Mirkin, et al.	435	6	09/28/01
JR	18.	6,750,016	06/15/04	Mirkin, et al.	435	6	03/28/01
JR	19.	6,759,199	07/06/04	Mirkin, et al.	435	6	09/20/01
JR	20.	6,767,702	07/27/04	Mirkin, et al.	435	6	01/12/01
JR	21.	6,773,884	08/10/04	Mirkin, et al.	435	6	08/07/01
JR	22.	6,777,186	08/17/04	Mirkin, et al.	435	6	10/15/01
JR	23.	2002/0137070 A1	09/26/02	Mirkin, et al.	435	6	10/10/01
JR	24.	2002/0155461 A1	10/24/02	Mirkin, et al.	435	6	10/12/01
JR	25.	2002/0160381 A1	10/31/02	Mirkin, et al.	435	6	10/11/01
JR	26.	2002/0177143 A1	11/28/02	Mirkin, et al.	435	6	12/28/01
JR	27.	2002/0192687 A1	12/19/02	Mirkin, et al.	435	6	03/27/02
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JR	29.	2003/0068622 A1	04/10/03	Mirkin, et al.	435	6	10/12/01

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JR	32.	2003/0113740 A1	06/19/03	Mirkin, et al.	435	6	04/18/02
JR	33.	2003/0124528 A1	07/3/03	Mirkin, et al.	435	6	10/12/01
JR	34.	2003/0129608 A1	07/10/03	Mirkin, et al.	435	6	05/22/02
JR	35.	2003/0143538 A1	07/31/03	Mirkin, et al.	435	6	10/11/01
JR	36.	2003/0143598 A1	07/31/03	Mirkin, et al.	435	6	11/08/02
JR	37.	2003/0148282 A1	08/07/03	Mirkin, et al.	435	6	10/12/01
JR	38.	2003/0207296 A1	11/06/03	Mirkin, et al.	435	6	10/08/02
JR	39.	2003/0211488 A1	11/13/03	Mirkin, et al.	435	6	06/14/02
JR	40.	2004/0038255 A1	02/26/04	Mirkin, et al.	435	6	03/26/03
JR	41.	2004/0053222 A1	03/18/04	Mirkin, et al.	435	6	07/02/03
JR	42.	2004/0072231 A1	04/15/04	Mirkin, et al.	435	6	08/13/03
JR	43.	2004/0086897 A1	05/06/04	Mirkin, et al.	435	6	05/07/03
JR	44.	2004/0101889 A1	05/27/04	Mirkin, et al.	435	6	08/04/03

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		Document Number	Date	Country	Class	Subclass	Translation Yes No	
JR	45.	WO 98/04740 A1	02/05/98	PCT				
JR	46.	WO 00/33079 A1	06/08/00	PCT				
JR	47.	WO 01/00876 A1	01/04/01	PCT				
JR	48.	WO 01/051665 A2	07/19/01	PCT				
JR	49.	WO 01/073123 A3	10/04/01	PCT				
JR	50.	WO 02/004681 A3	01/17/02	PCT				
JR	51.	WO 02/018643 A3	03/07/02	PCT				
JR	52.	WO 02/046472 A3	06/13/02	PCT				
JR	53.	WO 02/079490 A3	10/10/02	PCT				
JR	54.	WO 02/096262 A2	12/05/02	PCT				
JR	55.	WO 2003/008539 A3	01/30/03	PCT				
JR	56.	WO 2003/035829 A3	05/01/03	PCT				
JR	57.	WO 2003/081202 A3	10/02/03	PCT				
JR	58.	WO 2003/087188 A1	10/23/03	PCT				
JR	59.	WO 2003/095973 A2	11/20/03	PCT				
JR	60.	WO 2004/004647 A3	01/31/04	PCT				
JR	61.	WO 2004/053105 A2	06/24/04	PCT				

Examiner  Jezia Riley/	Date Considered 06/20/2006
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FORM PTO-1449
(Rev. 2-32)

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Patent and Trademark Office

Atty. Docket No.

00-715-B

Serial N .

10/716,829

INFORMATION DISCLOSURE
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(Use several sheets if necessary)



Applicant:

Chad A. Mirkin, et al.

Filing Date:

November 18, 2003

Group:

1656

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
JR	1.	5,609,907	03/11/97	Natan			
JR	2.	6,025,202	02/15/00	Natan			
JR	3.	6,149,868	11/21/00	Natan, et al.			

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

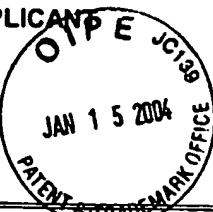
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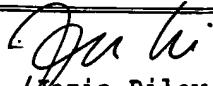
Examiner Initial		Document Number	Date	Name	Class Subclass	Filing Date
JR	1.	5,284,748	02/22/94	Engelhardt, et al.		
JR	2.	5,288,609	02/08/94	Mroczkowski, et al.		
JR	3.	5,360,895	11/01/94	Hainfield, et al.		
JR	4.	5,384,265	01/24/95	Kidwell, et al.		
JR	5.	5,472,881	12/05/95	Beebe, et al.		
JR	6.	5,599,668	02/04/97	Stimpson, et al.		
JR	7.	5,637,508	06/10/97	Kidwell, et al.		
JR	8.	5,751,018	05/12/98	Alivisatos, et al.		
JR	9.	5,939,021	08/17/99	Hansen, et al.		
JR	10.	5,990,479	11/23/99	Weiss, et al.		

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		Document Number	Date	Country	Class	Subclass	Translation Yes N
JR	11.	WO 93/10564	27 May 93	PCT			
JR	12.	WO 98/10289	12 March 98	PCT			
JR	13.	WO 99/23258	14 May 99	PCT			
JR	14.	WO 99/21934	06 May 99	PCT			
JR	15.	WO 99/20789	29 April 99	PCT			

OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc.

JR	16.	O.D. Velez, et al., "In Situ Assembly of Colloidal Particles into Miniaturized Biosensors," <i>Langmuir</i> , Vol. 15, No. 11, pp. 3693-3698, May 25, 1999
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JR	1.	4,996,143	02/26/91	Heller, et al.	435	6	04/13/90
JR	2.	5,508,164	04/16/96	Kausch, et al.	435	6	10/29/93
JR	3.	5,922,537	07/13/99	Ewart, et al.	435	6	11/8/96
JR	4.	5,972,615	10/26/99	An, et al.	435	6	01/21/98
JR	5.	6,264,825	07/24/01	Blackburn, et al.	205	777.5	06/23/99
JR	6.	6,214,560	04/10/01	Yguerabide, et al.	435	7.1	04/18/97

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
JR	7.	WO 94/29484	12/22/94	PCT	4	4		
JR	8.	WO 00/25136	05/04/00	PCT	4	4		

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

JR	9.	Mohanty J., et al. "Pulsed laser excitation of phosphate stabilized silver nanoparticles," <i>Proc. Indian Acad. Sci.</i> , Vol. 112, No. 1, p. 63-72.
JR	10.	Peña-Nicewarner S., et al., "Hybridization and Enzymatic Extension of Au Nanoparticle-Bound Oligonucleotides," <i>J. Am. Chem. Soc.</i> , Vol. 124, p. 7314-7323 (2002)
JR	11.	Whitesides G.M., et al., "Soft Lithography in Biology and Biochemistry," <i>Annu. Rev. Biomed. Eng.</i> , p. 335-373 (2001)

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JR	4.	5,972,615	10/26/99	An, et al.	435	6	01/21/98
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JR	6.	6,214,560	04/10/01	Yguerabide, et al.	435	7.1	04/18/97

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JR	7.	WO 94/29484	12/22/94	PCT	2	2		
JR	8.	WO 00/25136	05/04/00	PCT	2	2		

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JR	9.	Mohanty J., et al. "Pulsed laser excitation of phosphate stabilized silver nanoparticles," <i>Proc. Indian Acad. Sci.</i> , Vol. 112, No. 1, p. 63-72.
JR	10.	Peña-Nicewarner S., et al., "Hybridization and Enzymatic Extension of Au Nanoparticle-Bound Oligonucleotides," <i>J. Am. Chem. Soc.</i> , Vol. 124, p. 7314-7323 (2002)
JR	11.	Whitesides G.M., et al., "Soft Lithography in Biology and Biochemistry," <i>Annu. Rev. Biomed. Eng.</i> , p. 335-373 (2001)

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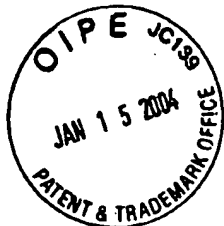
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JR	2.	5,990,479	11/23/99	Weiss, et al.	~	~	

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

JR	3.	Stimpson, et al., "Real-time detection of DNA hybridization and melting on oligonucleotide arrays by using optical wave guides," <i>Proc. Natl. Acad. Sci.</i> , Vol. 92, pp. 6379-6383, California Institute of Technology (1995) U.S.					
JR	4.	Storhoff, et al., "Strategies for Organizing Nanoparticles into Aggregate Structures and Functional Materials," <i>Journal of Cluster Science</i> , Vol. 8, No. 2, pp. 179-217, Plenum Publishing Corporation (1997) U.S.					
JR	5.	Storhoff, et al., "One-Pot Colorimetric Differentiation of Polynucleotides with Single Base Imperfections Using Gold Nanoparticle Probes," <i>J. Am. Chem. Soc.</i> , Vol. 120, pp. 1961-1964, American Chemical Society (1998) U.S.					
JR	6.	Velev, et al., "In Situ Assembly of Colloidal Particles into Miniaturized Biosensors," <i>Langmuir</i> , Vol. 15, No. 11, pp. 3693-3698, American Chemical Society (1999) U.S.					
JR	7.	Zhu, et al., "The First Raman Spectrum of an Organic Monolayer on a High-Temperature Superconductor: Direct Spectroscopic Evidence for a Chemical Interaction between an Amine and Yb ₂ Cu ₃ O _{7-δ} ," <i>J. Am. Chem. Soc.</i> , Vol. 119, pp. 235-236, American Chemical Society (1997) U.S.					

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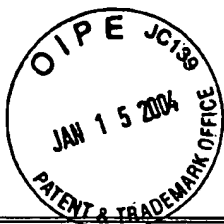
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JR	8.	Yguerabide, et al., "Light-Scattering Submicroscopic Particles as Highly Fluorescent Analogs and Their Use as Tracer Labels in Clinical and Biological Applications," I. Theory, <i>Analytical Biochemistry</i> , Vol. 262, pp. 137-156 (1998) U.S.
JR	9.	Yguerabide, et al., "Light-Scattering Submicroscopic Particles as Highly Fluorescent Analogs and Their Use as Tracer Labels in Clinical and Biological Applications," II. Experimental Characterization, <i>Analytical Biochemistry</i> , Vol. 262, pp. 157-176 (1998) U.S.

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JR	1.	5,830,986	11/03/98	Merrill, et al.	528	332	10/28/96
JR	2.	5,900,481	05/04/99	Lough, et al.	536	55.3	11/06/96
JR	3.	6,203,989	03/20/01	Goldberg, et al.	435	6	03/25/99
JR	4.	6,251,303	06/26/01	Bawendi, et al.	252	301.4R	09/18/98
JR	5.	6,277,489	08/21/01	Abbott, et al.	428	403	12/04/98
JR	6.	6,306,610	10/23/01	Bawendi, et al.	435	7.1	09/17/99
JR	7.	6,361,944	03/26/02	Mirkin, et al.	435	6	06/25/99
JR	8.	6,365,418	04/02/02	Wagner, et al.	436	518	05/18/00
JR	9.	6,417,340	07/09/02	Mirkin, et al.	536	23.1	10/20/00

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JR	10.	WO 93/25709	23 December 1993	PCT				
JR	11.	WO 98/04740	5 February 1998	PCT				
JR	12.	WO 98/17317	30 April 1998	PCT				
JR	13.	WO 99/60169	25 November 1999	PCT				
JR	14.	WO 00/33079	8 June 2002	PCT				
JR	15.	WO 01/00876	4 January 2001	PCT				

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JR	16.	WO 01/51665	19 July 2001	PCT				
JR	17.	WO 01/73123	4 October 2001	PCT				
JR	18.	WO 01/86301	15 November 2001	PCT				
JR	19.	WO 02/04681	17 January 2002	PCT				
JR	20.	WO 02/18643	7 March 2002	PCT				
JR	21.	WO 02/36169	10 May 2002	PCT				
JR	22.	WO 02/46483	13 June 2002	PCT				
JR	23.	WO 02/46472	13 June 2002	PCT				

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JR	24.	Letsinger, R., et al., "Chemistry of Oligonucleotide-Gold Nanoparticle Conjugates," <i>Phosphorus, Sulfur and Silicon</i> , Volume 144, p. 359-362 (1999)
JR	25.	Letsinger, R., et al., "Use of a Steroid Cyclic Disulfide Anchor in Constructing Gold Nanoparticle—Oligonucleotide Conjugates," <i>Bioconjugate Chem</i> , p. 289-291 (2000)

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JR	26.	Li Z., et al., "Multiple thiol-anchor capped DNA-gold nanoparticle conjugates," <i>Nucleic Acids Research</i> , Volume 30, p. 1558-1562 (2002)
JR	27.	Nuzzo R., et al., "Spontaneously Organized Molecular Assemblies. 3. Preparation and Properties of Solution Adsorbed Monolayers of Organic Disulfides on Gold Surfaces," <i>J. Am Chem. Soc.</i> , Volume 109, p. 2358-2368 (1987)
JR	28.	Otsuka, H., et al., "Quantitative and Reversible Lectin-Induced Association of Gold Nanoparticles Modified with D-Lactosyl-D-mercapto-poly(ethyleneglycol)," <i>J. Am Chem. Soc.</i> , Volume 123, p. 8226-8230 (2001)
JR	29.	Wuelfing, P., et al., "Nanometer Gold Clusters Protected by Surface-Bound Monolayers of Thiolated Poly(ethylene glycol) Polymer Electrolyte," <i>J. Am Chem. Soc.</i> , Volume 120, p. 12696-12697 (1998)


EXAMINER

Jezia Riley/

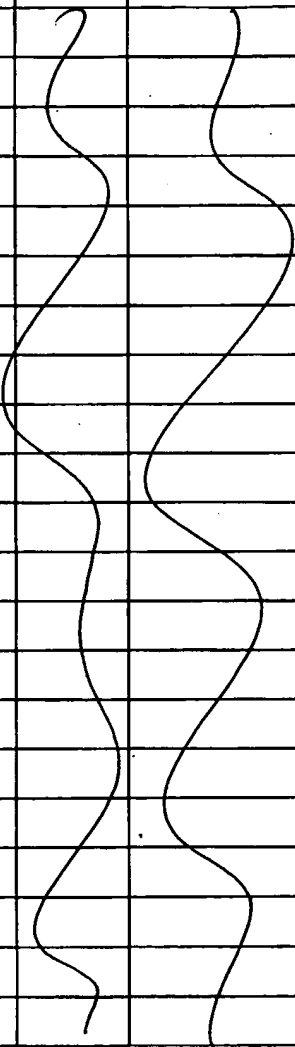
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Form PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 00-715-B	Serial No. 10/716,829
INFORMATION DISCLOSURE STATEMENT BY APPLICANT 		Applicant: Chad A. Mirkin, et al.	
		Filing Date: November 18, 2003	Group: 1656

U.S. PATENT DOCUMENTS


Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
JR	1.	4,193,983	3/18/80	Ullman et al.			
JR	2.	4,256,834	3/17/81	Zuk et al.			
JR	3.	4,261,968	4/14/81	Ullman et al.			
JR	4.	4,313,734	2/2/82	Leuversing			
JR	5.	4,318,707	3/9/82	Litman et al.			
JR	6.	4,650,770	3/17/87	Liu et al.			
JR	7.	4,713,348	12/15/87	Ullman			
JR	8.	4,853,335	8/1/89	Olsen et al.			
JR	9.	4,868,104	9/19/89	Kurn et al.			
JR	10.	5,225,064	7/6/93	Henkens et al.			
JR	11.	5,294,369	3/15/94	Shigekawa et al.			
JR	12.	5,384,073	1/24/95	Shigekawa et al.			
JR	13.	5,384,265	1/24/95	Kidwell et al.			
JR	14.	5,460,831	10/24/95	Kossovsky et al.			
JR	15.	5,472,881	12/5/95	Beebe et al.			
JR	16.	5,514,602	05/07/96	Brooks, Jr. et al.			
JR	17.	5,521,289	5/28/96	Hainfeld et al.			
JR	18.	5,543,158	8/6/96	Gref et al.			
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JR	21.	5,681,943	10/28/97	Letsinger et al.			

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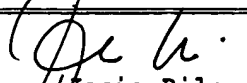
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JR	22.	WO 89/06801	7/27/89	PCT				
JR	23.	WO 97/40181	10/30/97	PCT				
JR	24.	WO 98/04740	2/5/98	PCT				
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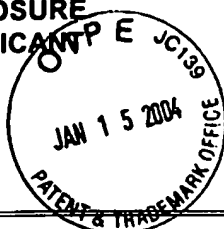
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Examiner <i>Debra Riley</i> Debra Riley	Date Considered 06/20/2006
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FOREIGN PATENT DOCUMENTS

Document Number	Date	Country	Class	Subclass	Translation Yes No

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